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| 10/525,058 | 09/06/2005 | Christoph Brabec | 21928-017US1 | 5861 |

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| EXAMINER | |
|---|---|
| MOWLA, GOLAM | |
| ART UNIT | PAPER NUMBER |
| 1795 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/525,058 | BRABEC ET AL. | |
| | Examiner | Art Unit | |
| | GOLAM MOWLA | 1795 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *31 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-4,6-17 and 20-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-17 and 20-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's amendment of 10/31/2008 does not place the Application in condition for allowance.

2. Claims 1-4, 6-17 and 20-41 are pending. Applicant has amended claims 1, 3, 4, 7, 9, 13, 16, 21, 23 and 27, canceled claims 5 and 18-19, and added claims 28-41.

### *Status of the Rejections*

3. Due to Applicant's amendment of claims 1, 3, 4, 7, 9, 13, 16, 21, 23 and 27, all rejections from the office Action mailed on 10/17/2008 are withdrawn. New ground(s) of rejection under 35 U.S.C. 102/103is/are necessitated is presented below.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 38 recites the limitation "the periodic structure" in line 1. There is insufficient antecedent basis for this limitation in the claim. Examiner suggests changing "the periodic structure" to "a periodic structure."

***Claim Rejections - 35 USC § 102***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-2, 4, 7-8 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura (US 6291763, cited in previous office action).

Regarding claims 1-2 and 7-8, Nakamura discloses an organic photovoltaic component comprising (fig. 2B and col. 29, lines 49-54):

- a substrate (13) that is made of flexible sheet (col. 31, lines 41-45), of which back side (back surface) is structured (col. 31, lines 46-62),
- a first electrode (12),
- an organic semiconductor (14), the first electrode (12) being between the substrate (13) and the organic semiconductor layer (14), and
- a second electrode (8), the organic semiconductor layer (14) being between first (12) and second (8) electrodes, and the first electrode being between the substrate (13) and the second electrode (8),
    - wherein the first electrode (12) a planar surface (bottom surface of layer 12).

Regarding claims 4 and 29, Nakamura discloses a method comprising:

- providing an organic photovoltaic cell, comprising (fig. 2B and col. 29, lines 49-54):

- a substrate (13) that is made of flexible sheet (col. 31, lines 41-45), of which back side (back surface) is structured (col. 31, lines 46-62),
- a first electrode (12),
- an organic semiconductor (14), the first electrode (12) being between the substrate (13) and the organic semiconductor layer (14), and
- a second electrode (8), the organic semiconductor layer (14) being between first (12) and second (8) electrodes.

***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1, 3-4, 6-7, 9-15, 21-28, 30-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno (US 6350945) in view of Fujimori et al. (US PGPUB 2002/0108649, cited in previous office action).

Regarding claim 1, Mizuno discloses a photovoltaic component (see col. 1, lines 12-16, col. 3, line 50 to col. 4, line 44; see also fig. 2), comprising:

- a substrate (15) having a surface that is structured (see fig. 2) and
- a photovoltaic component (solar cell 10; fig. 2) having a first and second electrodes and a semiconductor layer (inherent features of a solar cell).

Although Mizuno discloses that the photovoltaic component (10) can be organic photovoltaic component (see col. 1, lines 12-16), the reference does not explicitly disclose the use of an organic photovoltaic component comprising an organic semiconductor layer.

Fujimori discloses an organic photovoltaic component (photoelectric conversion device comprising organic compound, see abstract and [0010-0011]) comprising a first electrode (first electrode 3, fig. 7, ¶ 0069) having a planar surface ([0081]), an organic semiconductor (hole transport layer 5, fig. 7; ¶ 0069, 0104, 0016, 0221, 0223), and a second electrode (second electrode 6, fig. 7, ¶ 0069), and the organic semiconductor layer (5) being between the first (3) and second electrodes. Fujimori further discloses that the organic photovoltaic component has excellent photoelectric conversion efficiency (see [0011]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the organic photovoltaic component with an organic semiconductor layer of Fujimori in place of solar cell of Mizuno, because organic photovoltaic component with an organic semiconductor layer allows for excellent photoelectric conversion efficiency, as shown by Fujimori.

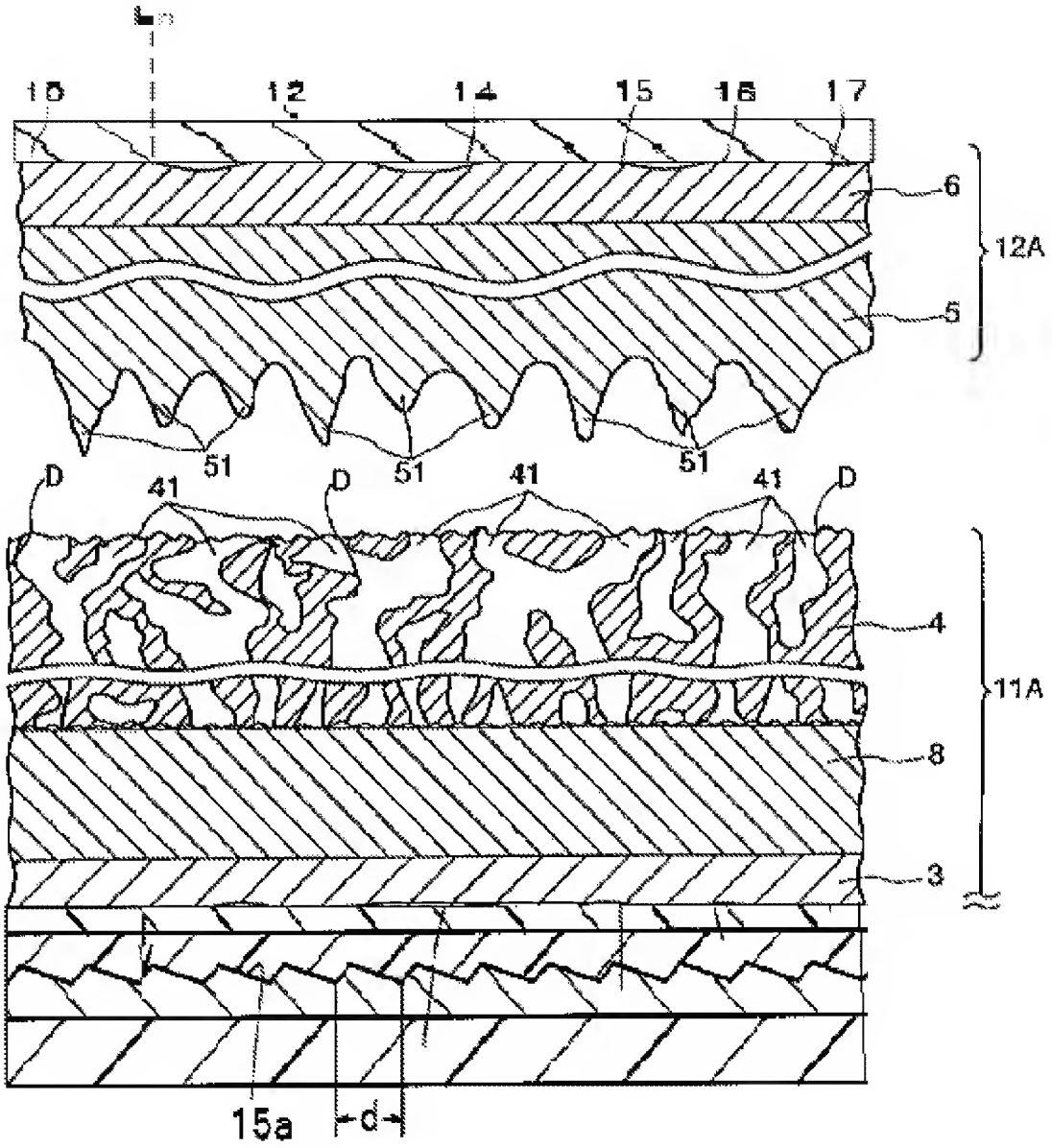


**Figure 1: Solar cell of Mizuno incorporated organic photovoltaic cell of Fujimori**

Regarding claim 3, Mizuno in view of Fujimori further discloses an additional layer (16) between the substrate (15) and the first electrode (electrode 3 of Fujimori), the additional layer (16) having a surface (lower surface) that is structured.

Regarding claim 4, Mizuno discloses a method comprising:

- providing a photovoltaic component (solar cell 10; see col. 1, lines 12-16, col. 3, line 50 to col. 4, line 44; see also fig. 2), comprising:
    - a substrate (15) having a surface that is structured (see fig. 2) and
    - a photovoltaic component (solar cell 10; fig. 2) having a first and second electrodes and a semiconductor layer (inherent features of a solar cell).

Although Mizuno discloses that the photovoltaic component (10) can be organic photovoltaic component (see col. 1, lines 12-16), the reference does not explicitly disclose the use of an organic photovoltaic component comprising an organic semiconductor layer.

Fujimori discloses an organic photovoltaic component (photoelectric conversion device comprising organic compound, see abstract and [0010-0011]) comprising a first electrode (first electrode 3, fig. 7, ¶ 0069) having a planar surface ([0081]), an organic semiconductor (hole transport layer 5, fig. 7; ¶ 0069, 0104, 0016, 0221, 0223), and a second electrode (second electrode 6, fig. 7, ¶ 0069), and the organic semiconductor layer (5) being between the first (3) and second (6) electrodes. Fujimori further discloses that the organic photovoltaic component has excellent photoelectric conversion efficiency (see [0011]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the organic photovoltaic component with an organic semiconductor layer of Fujimori in place of solar cell of Mizuno, because organic

photovoltaic component with an organic semiconductor layer allows for excellent photoelectric conversion efficiency, as shown by Fujimori.

Regarding claim 6, Mizuno in view of Fujimori further discloses an additional layer (16) on the structured surface of the substrate (15) so that the additional layer (16) has a structured surface (lower surface) that supports the semiconductor layer (layer 5 of Fujimori).

Regarding claim 7, Mizuno discloses a photovoltaic component (see col. 1, lines 12-16, col. 3, line 50 to col. 4, line 44; see also fig. 2), comprising:

- a substrate (15) having a surface that is structured (see fig. 2) and
- a photovoltaic component (solar cell 10; fig. 2) having a first and second electrodes and a semiconductor layer (inherent features of a solar cell).

Although Mizuno discloses that the photovoltaic component (10) can be organic photovoltaic component (see col. 1, lines 12-16), the reference does not explicitly disclose the use of an organic photovoltaic component comprising an organic semiconductor layer.

Fujimori discloses an organic photovoltaic component (photoelectric conversion device comprising organic compound, see abstract and [0010-0011]) comprising a first electrode (first electrode 3, fig. 7, ¶ 0069) having a planar surface ([0081]), an organic semiconductor (hole transport layer 5, fig. 7; ¶ 0069, 0104, 0016, 0221, 0223), and a second electrode (second electrode 6, fig. 7, ¶ 0069), and the organic semiconductor layer (5) being between the first (3) and second electrodes. Fujimori further discloses

that the organic photovoltaic component has excellent photoelectric conversion efficiency (see [0011]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the organic photovoltaic component with an organic semiconductor layer of Fujimori in place of solar cell of Mizuno, because organic photovoltaic component with an organic semiconductor layer allows for excellent photoelectric conversion efficiency, as shown by Fujimori.

Regarding claim 9, Mizuno in view of Fujimori further discloses that a surface of the semiconductor is planar (see fig. 7 of Fujimori).

Regarding claim 10, Mizuno in view of Fujimori further discloses that the first electrode (3 of Fujimori) is disposed on the substrate (15).

Regarding claim 11, Mizuno in view of Fujimori further discloses that the first electrode (3) is made of ITO. Electrode made of ITO is a cathode (applicant's specification, page 2, ¶ 3).

Regarding claim 12, Mizuno in view of Fujimori further discloses a planarized layer (17) between the substrate (15) and the first electrode (electrode 3 of Fujimori).

Regarding claim 13, Mizuno in view of Fujimori further discloses the first electrode (electrode 3 of Fujimori) is disposed on a planarized surface (top surface of 17) of the planarized layer (17) (see fig. 7 of Fujimori).

Regarding claim 14, Mizuno in view of Fujimori further discloses a planarized layer (barrier layer 8, ¶ 0069; see fig. 7 that shows the barrier layer is planarized) between the organic semiconductor (5) and the first electrode (3).

Regarding claim 15, Mizuno in view of Fujimori further discloses that the first electrode (3 of Fujimori) is disposed on the substrate (15).

Regarding claim 21, Mizuno in view of Fujimori further discloses that the substrate (15) has a structured surface.

Regarding claim 22, Mizuno in view of Fujimori further discloses that the first electrode (3) has a structured surface ("*The first electrode 3 is …formed into a shape, for example, which has a plurality of comb teeth*", ¶ 0081).

Regarding claim 23, Mizuno discloses a photovoltaic component (see col. 1, lines 12-16, col. 3, line 50 to col. 4, line 44; see also fig. 2), comprising:

- a substrate (15) having a surface (see fig. 2 which shows layer 15 has lower and upper surfaces);
- a support layer (16) having a surface (see fig. 2) and
- a first electrode (solar cell 10 inherently has two electrodes - anode and cathode; in this case the first electrode would be the one touching layer 17), the support layer (16) being between the substrate (15) and the first electrode;
- a second electrode (solar cell 10 inherently has two electrodes - anode and cathode; in this case the second electrode would be the opposite the first electrode which touches layer 17);
- a semiconductor layer between the first and second electrodes ((solar cell 10 has a semiconductor layer between anode and cathode),

- wherein the first electrode is between the support layer (16) and the semiconductor; and
- at least one surface selected from the group consisting of the surface of the substrate (15) and the surface of the support layer is structured (see fig. 2).

Although Mizuno discloses that the photovoltaic component (10) can be organic photovoltaic component (see col. 1, lines 12-16), the reference does not explicitly disclose the use of an organic photovoltaic component comprising an organic semiconductor layer.

Fujimori discloses an organic photovoltaic component (photoelectric conversion device comprising organic compound, see abstract and [0010-0011]) comprising a first electrode (first electrode 3, fig. 7, ¶ 0069) having a planar surface ([0081]), an organic semiconductor (hole transport layer 5, fig. 7; ¶ 0069, 0104, 0016, 0221, 0223) having a planar surface (see fig. 7), and a second electrode (second electrode 6, fig. 7, ¶ 0069), and the organic semiconductor layer (5) being between the first (3) and second electrodes. Fujimori further discloses that the organic photovoltaic component has excellent photoelectric conversion efficiency (see [0011]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the organic photovoltaic component with an organic semiconductor layer of Fujimori in place of solar cell of Mizuno, because organic photovoltaic component with an organic semiconductor layer allows for excellent photoelectric conversion efficiency, as shown by Fujimori.

Regarding claim 24, Mizuno further discloses that the surface of the support layer (16) is structured (lower surface of 16).

Regarding claim 25, Mizuno further discloses that the surface of the substrate is structured (upper surface of 15).

Regarding claim 26, Mizuno further discloses that the surface of the substrate is planar (lower surface of 15).

Regarding claim 27, Mizuno further discloses that the surface of the support layer (16) is planar (upper surface of 16).

Regarding claim 28, Mizuno further discloses that the structured surface of the substrate has a periodic structure (see fig. 2 and 10).

Regarding claim 30, Mizuno in view of Fujimori further discloses an additional layer (16) between the substrate (15) and the first electrode (electrode 3 of Fujimori), the additional layer (16) having a surface (lower surface) that is structured.

Regarding claims 31-33, Mizuno further discloses that the structured surface of the substrate has a periodic structure (see fig. 2 and 10).

Regarding claim 34, Mizuno further discloses that the periodic structure of the substrate (15) is configured to impart light trapping during use of the organic photovoltaic component (see fig. 10). Examiner also notes that the functional limitation "to impart light trapping during use of the organic photovoltaic component" does not add any structural limitation to the product, and therefore has not been given any patentable weight.

Regarding claim 35, Mizuno further discloses that the structured surface of the support layer (16) has a periodic structure (see fig. 2 and 10).

Regarding claims 36 and 40, Mizuno discloses a photovoltaic component (see col. 1, lines 12-16, col. 3, line 50 to col. 4, line 44; see also fig. 2), comprising:

- a substrate (15) having a surface with a periodic structure (see fig. 2 and 10) and
- a photovoltaic component (solar cell 10; fig. 2) having a first and second electrodes and a semiconductor layer (inherent features of a solar cell).

Although Mizuno discloses that the photovoltaic component (10) can be organic photovoltaic component (see col. 1, lines 12-16), the reference does not explicitly disclose the use of an organic photovoltaic component comprising an organic semiconductor layer.

Fujimori discloses an organic photovoltaic component (photoelectric conversion device comprising organic compound, see abstract and [0010-0011]) comprising a first electrode (first electrode 3, fig. 7, ¶ 0069) having a planar surface ([0081]), an organic semiconductor (hole transport layer 5, fig. 7; ¶ 0069, 0104, 0016, 0221, 0223), and a second electrode (second electrode 6, fig. 7, ¶ 0069), and the organic semiconductor layer (5) being between the first (3) and second electrodes. Fujimori further discloses that the organic photovoltaic component has excellent photoelectric conversion efficiency (see [0011]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the organic photovoltaic component with an organic

semiconductor layer of Fujimori in place of solar cell of Mizuno, because organic photovoltaic component with an organic semiconductor layer allows for excellent photoelectric conversion efficiency, as shown by Fujimori.

Regarding claims 37 and 41, Mizuno further discloses that the periodic structure of the substrate (15) is configured to impart light trapping during use of the organic photovoltaic component (see fig. 10). Examiner also notes that the functional limitation "to impart light trapping during use of the organic photovoltaic component" does not add any structural limitation to the product, and therefore has not been given any patentable weight.

Regarding claim 38, Mizuno discloses a method comprising:

- providing a photovoltaic component (solar cell 10; see col. 1, lines 12-16, col. 3, line 50 to col. 4, line 44; see also fig. 2), comprising:
    - a substrate (15) having a surface that is periodically structured (see fig. 2) and
    - a photovoltaic component (solar cell 10; fig. 2) having a first and second electrodes and a semiconductor layer (inherent features of a solar cell).

Although Mizuno discloses that the photovoltaic component (10) can be organic photovoltaic component (see col. 1, lines 12-16), the reference does not explicitly disclose the use of an organic photovoltaic component comprising an organic semiconductor layer.

Fujimori discloses an organic photovoltaic component (photoelectric conversion device comprising organic compound, see abstract and [0010-0011]) comprising a first electrode (first electrode 3, fig. 7, ¶ 0069) having a planar surface ([0081]), an organic semiconductor (hole transport layer 5, fig. 7; ¶ 0069, 0104, 0016, 0221, 0223), and a second electrode (second electrode 6, fig. 7, ¶ 0069), and the organic semiconductor layer (5) being between the first (3) and second (6) electrodes. Fujimori further discloses that the organic photovoltaic component has excellent photoelectric conversion efficiency (see [0011]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the organic photovoltaic component with an organic semiconductor layer of Fujimori in place of solar cell of Mizuno, because organic photovoltaic component with an organic semiconductor layer allows for excellent photoelectric conversion efficiency, as shown by Fujimori.

Regarding claim 39, Mizuno further discloses that the periodic structure of the substrate (15) is configured to impart light trapping during use of the organic photovoltaic component (see fig. 10). Examiner also notes that the functional limitation "to impart light trapping during use of the organic photovoltaic component" does not add any structural limitation to the product, and therefore has not been given any patentable weight.

10. Claims 16, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimori in view of Mizuno.

Regarding claims 16, 17 and 20, Fujimori discloses a photovoltaic cell (see fig. 2 and [0066]), comprising:

- a flexible substrate (2) that is not structured (see fig. 2 and [0074]);
- a first electrode (first electrode 3, fig. 2, ¶ 0069);
- a second electrode (second electrode 6, fig. 2, ¶ 0069); and
- an organic semiconductor (hole transport layer 5, fig. 2; ¶ 0069, 0104, 0016, 0221, 0223) between the first (3) and second (6) electrodes,
    - wherein the first electrode (3) is structured ("*The first electrode 3 is …formed into a shape, for example, which has a plurality of comb teeth*", ¶ 0081), and a surface of the organic semiconductor (top surface of layer 5) is planar (see fig. 1).

However, Fujimori is silent as to whether the photovoltaic cell further comprises a first layer having a structured surface and a second layer having a planar surface, and both the first and second layers being between the substrate and the first electrode.

Mizuno teaches a photovoltaic cell (see fig. 2) wherein a first layer (15) having a structured surface (see fig. 2) and a second layer (intermediate layer 16 and adhesive layer 17; since both are made of thermosetting resin; see col. 4, lines 16-44) having a planer surface (see fig. 2) are formed in between the flexible substrate (14) and the first electrode (solar cell 10 inherently has a first and second electrode) in order to improve the optical absorption efficiency (see col. 2, lines 32-37).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the first and second layers of Mizuno in between the first

electrode and the substrate of Fujimori in order to improve the optical absorption efficiency, as shown Mizuno.

### *Response to Arguments*

11. Applicant's arguments with respect to claims 1-4, 6-17 and 20-41 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that "as amended, claims 1-4 and 6 require a substrate, a first electrode, an organic semiconductor layer, and a second electrode, where the first electrode is between the substrate and the organic semiconductor layer, the organic semiconductor layer is between the first and second electrodes, the substrate has a surface that is structured, and the first electrode has a planar surface. Saurer does not disclose or render obvious such subject matter, and neither Fujimori nor Feinberg, alone or in combination, cures Saurer's deficiencies. Thus, while Applicants do not concede that it would have been obvious (or even possible) to one skilled in the art to combine these references in the manner indicated by the Examiner, even if such a combination were made (if possible), the result would not be the subject matter covered by claims 1-4 and 6" (see Remarks, page 1).

This argument is directed to the claims as amended and is moot in view of the new ground of rejection as presented above.

Applicant presents similar arguments regarding Fujimori, Shinohara and Nakamura references. However, all of these arguments are directed to the claims as amended and are moot in view of new ground of rejection as presented above.

### *Conclusion*

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### *Correspondence/Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GOLAM MOWLA whose telephone number is (571) 270-5268. The examiner can normally be reached on M-F, 0900-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ALEXA NECKEL can be reached on (571) 272-1446. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. M./
Examiner, Art Unit 1795

/Alexa D. Neckel/

Supervisory Patent Examiner, Art Unit 1795